1	Declaration of Alice Shocket	
2	I declare under penalty of perjury that I have reviewed the foregoing testimony and that those	
4	sections as to which I testified are true and correct.	
5		
6	Executed this 9th day of October, 2003.	
7		
8	$\bigcap$ $\bigcap$ $\bigcap$	
9	Clue Thoy	
10	Alice Shocket	
11		

1	Declaration of Rosemarie Clayton	
3	I declare under penalty of perjury that I have reviewed the foregoing testimony and that those	
4	sections as to which I testified are true and correct.	
5		
6	Executed this 9th day of October, 2003.	
7		
8	() - OD+	
9	Comman Jan	
10	Rosemarie Clayton	

# EXHIBIT A

Cavalier VA arbitration

**IDLC** provisions

Draft 10/09/03

11.7.6 Verizon shall provide Cavalier access to its Loops at each of Verizon's Wire Centers for Loops terminating in that Wire Center. In addition, if Cavalier requests, in order to provide narrowband services, unbundling of a 2-Wire Analog or 4-Wire Analog loop currently provisioned via Integrated Digital Loop Carrier ("IDLC"), Verizon shall, as and to the extent required by Applicable Law, provide Cavalier unbundled access to a loop capable of providing voice-grade service to the end user served by IDLC, by orders one or more Loops provisioned via Integrated Digital Loop Carrier or Remote Switching technology deployed as a Loop concentrator, Verizon shall, where available, movinge the requested Loop(s) to a spare physical Loop(s) or to a Universal Digital Loop Carrier Loop(s), if one is existing and available, at no additional charge to Cavalier. If, however, no spare physical Loop is available, Verizon shall, within three (3) Business days of Cavalier's request notify Cavalier of the lack of available facilities. Cavalier may then at its discretion make a Network Element Bona Fide Request to Verizon to provide the unbundled Local Loop through the demultiplexing of the integrated digitized Loop(s). Cavalier may also make a Network Element Bona Fide Request for access to Unbundled Local Loops at the Loop concentration site point, at the rates set forth in Exhibit A. In the event a physical Loop(s) or a Universal Digital Loop Carrier Loop(s) is not available, the Engineering Query rate, Engineering Work Order rate and Time and Materials charges set forth in Exhibit A shall apply in addition to the recurring and nonrecurring charges set forth in Exhibit A for the loop type ordered by Cavalier. Notwithstanding anything to the contrary in this Agreement, standard provisioning intervals shall not apply to Loops provided under this Section 11.7.6. Verizon's performance in connection with such Loops shall not be subject to any performance measurements, remedies and the like under this Agreement, and/or, except as otherwise required by Applicable Law, under any FCC or Commission approved carrier-to-carrier performance assurance guidelines, plans or the like.

# EXHIBIT B

1	COMMONWEALTH OF VIRGINIA
2	STATE CORPORATION COMMISSION
3	
4	
5	IN THE MATTER OF
6	
7	VERIZON VIRGINIA INC.'S CASE NO. PUC-2002-00046
8	compliance with the
9	conditions set forth in
LO	47 U.S.C. Section 271(c)
11	
12	
1.3	The complete transcript of the testimony
14	and other incidents of the above-captioned matter when
15	heard on June 19, 2002, before the Honorable Alexander
16	F. Skirpan, Jr., Hearing Examiner for the State
17	Corporation Commission, Richmond, Virginia.
1.8	
19	
20	
21	
22	
23	
24	Reported by:
25	Heidi L. Jeffreys

TAYLOE ASSOCIATES, INC.

- 1 extra analog-to-digital conversion card which slows up
- 2 modem speeds?
- 3 A. Not exactly.
- Q. Okay. Is it true that it has an extra
- 5 analog-to-digital conversion in the sequence?
- 6 A. If you're contrasting to an end-user
- 7 served with integrated digital loop carrier, on the
- 8 loop portion of the circuit, you will have an
- 9 additional analog-to-digital conversion with UDLC that
- 10 you do not have with IDLC.
- 11 Q. Or copper?
- 12 A. Yes.
- Q. So, if we have a Verizon customer on IDLC
- 14 who switches to Cavalier's service and is only able to
- obtain service through a UDLC, isn't it true that that
- 16 customer's dial-up modem speed for Internet
- 17 connectivity would diminish?
- 18 A. In some cases, and it's very important to
- 19 explain what those cases are.
- 20 Q. Then please explain.
- 21 A. And sometimes I get embarrassed because I
- 22 feel like I'm speaking in engineering baffle-garb.
- 23 I'll try to keep this as simple as I can, but it does
- 24 get fairly technically complex.
- What is impacted by the contrast of

TAYLOE ASSOCIATES, INC.

1 integrated digital carrier to universal digital loop

- 2 carrier is modems that meet the V, as in Victor, .90
- 3 standard. These newest types of modems have been
- 4 available for a couple of years.
- 5 Modems that meet the V, as in Victor, .34
- 6 standard, which have been around longer, are not
- 7 impacted to the same degree or in this same fashion as
- 8 the V.90 modems. The transmission speed of a V.90
- 9 modem, the common jargon people refer to them as 56
- 10 kilobit modems -- the transmission speed of that modem
- 11 operates two different ways. It operates in one
- 12 fashion for receiving data in the downstream
- 13 direction, it operates in another way when
- 14 transmitting data in the upstream direction.
- There are a number of items that impact
- 16 modems that use the V.90 transmission standard besides
- 17 the loop.
- The V.90 transmission standard, those
- 19 types of modems, also are simultaneously impacted by
- 20 the serving switch, by the type of trunk connections,
- 21 by the far-end switch, and by the type of loop
- 22 connection that the information service provider has.
- When you're looking at just the loop
- 24 piece alone, when you move an end-user from integrated
- 25 digital loop carrier to universal, when that end-user

1 is using a V.90 modem, the transmission speed in the

- 2 downstream direction does reduce. The transmission
- 3 speed in the upstream direction is not impacted.
- 4 Now, on the other hand, if you move from
- 5 integrated digital loop carrier to some copper cable
- 6 loops, for the short loops that are non-loaded, the
- 7 transmission speed in the downstream direction can
- 8 improve, compared to IDLC, and, again, the
- 9 transmission speed in the upstream direction is not
- 10 impacted.
- Now, the reason all this happens is
- 12 because our dial-up telephone network, which consists
- 13 of loops and trunks and switches, is designed for
- 14 voice services and for voice transmission. Over time,
- 15 modem manufacturers have developed equipment that
- 16 adjust to the number and varying conditions that you
- 17 encounter in trying to transmit data over the voice
- 18 telephone network.
- 19 You do get a pretty big variation in
- 20 modem manufacturers in that there are different levels
- 21 of quality and capability and effects, depending on
- 22 the manufacturer that you buy a V.90 modem from.
- 23 If you buy one of the more expensive V.90
- 24 modems, one of the better ones, ones like from
- 25 Motorola or from U.S. Robotics, those V.90s will

- 1 detect and will adjust to a great number of conditions
- 2 and better ways than you would if you had the V.90
- 3 modem that you got at Wawa when you got a fillup. So,
- 4 there's a lot of variations in the types of modems,
- 5 there's a lot of variations in the effects that are
- 6 caused due to the manufacturer. What it all boils
- 7 down to -- the loop component is important. There is
- 8 a set of circumstances where in one direction, the
- 9 transmission speed will be reduced for a V.90 modem,
- 10 but the major overall parameter that affects
- 11 through-put for trying to put data onto the voice
- 12 network is the aspect of the signal-to-noise ratio.
- 13 When you have a reduction in the signal-to-noise ratio
- 14 of a circuit, you correspondingly will have a
- 15 reduction in the through-put of your analog modem.
- There are a variety of factors associated
- 17 with making a call from an end-user to an ISP which
- 18 will potentially reduce the signal-to-noise ratio, and
- 19 which will potentially reduce the through-put. The
- 20 loop component is one of those, as I described. But
- 21 you can also have some pretty big impacts whenever you
- 22 run into any digital equipment in the network which
- 23 uses robbed bit signaling. And when you encounter
- 24 digital components that use robbed bit signaling, they
- 25 similarly will decrease the signal to noise ratio,

- 1 they similarly will decrease the through-put you get
- 2 on that particular call. Within our network in
- 3 Virginia, we have a number of components that
- 4 currently use robbed bit signaling. That includes all
- 5 of our digital loop carrier systems, it includes a
- 6 number of our trunks, and it includes the direct
- 7 inward dial T-1 trunks which a number of information
- 8 service providers purchase from us.
- 9 When you encounter padding,
- 10 P-A-D-D-I-N-G, in our switches, that also is another
- 11 major factor which will affect the transmission
- 12 through-put of a modem on a particular call. We put
- 13 padding into the circuits that pass through our
- 14 switches to basically add loss for voice calls into
- 15 the circuit. And the reason we do that is the network
- 16 is built for voice. You can have a transmission
- 17 circuit for voice that is too good, it's too hot, and
- 18 it has not enough loss, so our switches in different
- 19 parameters for different types of calls will then add
- 20 loss into the circuits, and those similarly will
- 21 affect the dial-up calls.
- 22 So, yes, the V.90 modems, transmission
- 23 speed in one direction though do get reduced. You
- 24 also have all these other varying impacts, and all of
- 25 that is why we don't guarantee a particular

1 transmission speed for modems over voice-grade analog

- 2 circuits. We don't guarantee them for our own
- 3 end-users. If you go to the transmission specs for
- 4 unbundled two-wire analog loops, the ones that you buy
- 5 from us, you know, those are spec'd to meet up with
- 6 the loops that we use for our own POTS dial-up
- 7 service. If you want to get a loop to use it for
- 8 something better for transmission of data, we do offer
- 9 a whole bunch of different types of unbundled loops
- 10 that you can use for different data services that are
- 11 designed to guarantee and support rates for data.
- 12 I'm done.
- 13 (Laughter)
- Q. Wowee-zowee.
- 15 So, subject to the caveats and additional
- 16 considerations in your answer, switching from IDLC to
- 17 UDLC can cause lower dial-up modem speed. Is that
- 18 right?
- 19 A. It's one of the factors that can cause it
- 20 in some cases.
- 21 Q. Okay.
- 22 (There was a pause in the proceedings.)
- 23 BY MR. PERKINS:
- Q. Now, in paragraph 98 of the reply
- 25 checklist declaration, Verizon states that this issue

# EXHIBIT C

# Bell Atlantic Analysis of the use of Hairpin/Nail-up in Central Office Switches July 17, 2000

### Introduction

A hairpin (sometimes called a side-door port) is a connection in which a semi-permanent path between two DS0 channels on the same IDLC switch interface is assigned. The original concept of hairpin connections was that hairpins are for "not local switched services" and "not switched special services". The purpose of this paper is to analyze whether "hot cuts" requiring Line Equipment Transfers (LET) and Loop Transfers could be more efficiently accomplished using a hairpin in the switch rather than manual MDF intervention and Central Office Terminal (COT) equipment.

The 5ESS and DMS100 are currently capable of hairpin/nail-up although it's implemented according to the uniqueness of each switch's architecture. In 1997 (at Bell Atlantic's request), Siemens wrote a "concept paper" on hairpinning. However, it is not supported in present EWSD software releases and hardware. On June 7, 2000, the Siemens Account Manager informed BA that it has estimated that it would take 20 staff members one man-year to develop the capability. With regard to using hairpinning the vendor documentation mainly addresses "special non-switched services" applications, but all indications are that the same aspects apply to unbundled loops.

### **Technical Description**

As previously stated, a hairpin is a connection in which a semi-permanent path between two DS0 channels on the same IDLC switch interface is assigned. Using hairpin/nail-up is not currently deployed in BA (for retail or wholesale operations) because the procedure is considered to be a very inefficient and expensive use of switch resources that requires manual handling since OS support has not been developed. The following descriptions illustrate the methods used by Lucent and Nortel to implement a hairpin on the 5ESS and DMS100. Siemens has not developed the capability for the EWSD.

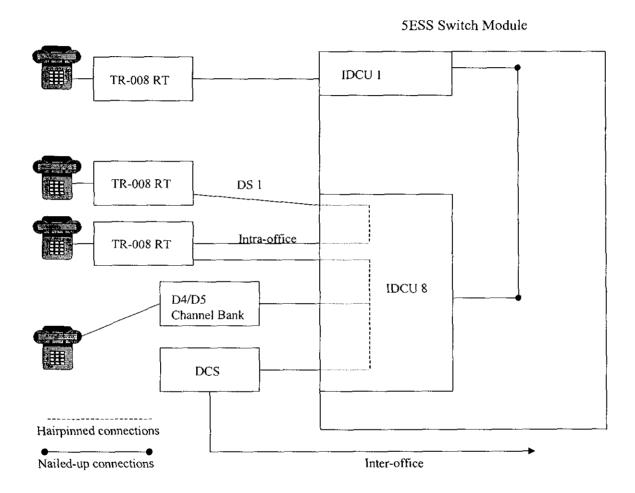
### **5ESS**

The 5ESS Nail-up and Hairpin Specification provides dedicated paths through the switch from one transmission facility (port) to another. The first port is designated the controlling port and the second port is designated the non-controlling port. Nail-up uses a path through the switch to establish a port-to-port connection; whereas, hairpin uses a path that enters and exits the same Integrated Digital Carrier Unit (IDCU) and therefore, does not use switch resources outside of the IDCU. A hairpin connection exits and enters an IDCU without using up (time slot) resources in the rest of the switch. (If the connection is not a hairpin, then it is a nail-up.) A hairpin connection is only allowed when both ports are on the same IDCU (note IDCU8 on the diagram in this section).

The hairpinned connection does not use Switch Module (SM) or Communications Module (CM) time slots (switch network fabric). Nonswitched (single or multichannel), nonlocally switched lines, and ISDN BRIs may be hairpinned in both a GR303 and TR008 (excludes ISDN) mode. There are no restrictions on hairpin connections since these are completely within a single Integrated Digital Carrier Unit (IDCU). Also, there are no software restrictions on the number of hairpin connections allowed on an IDCU. The DNU-S supports GR-303 in 5E12 but does not support hairpinning, thus limiting its application. (Nailed-up circuits could be used in lieu of hairpinning in this case, but this method would require the use of the switched network time slots.)

The TR008 and GR303 requirements both allow the IDCU to provide hairpin and nail-up time slot paths through the IDCU. In the 5ESS, a nail-up is a semi-permanent path through the SM [or the SM and the communications module (CM)], between a DS0 channel on the IDCU and a DS0 port on another SM peripheral. A SM can have a maximum of 190 nailed up time slots. Nonswitched (single channel) and nonlocally switched lines may be nailed up.

The difference between hairpinning and nailup in the 5ESS is that hairpinning doesn't use up switch fabric while nail up does. In hairpinning, one DS0 on an interface group (up to 4DS1's or one RT) is mapped to a channel (DS0) on a DS1 in another interface group (up to 4DS1's or one RT). For example, on an IDCU, channel 5 on DS1 port#1 (in RT #1) can be mapped to a channel on DS1 port #28, which is in another interface group. This takes up 2 DS0s on the "line" side to handle one line. In theory, multiple DS0s from multiple RTs on one IDCU can be hairpinned to one interface group that may terminate on a D4 channel bank.



The hairpin connections supported are as follows:

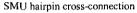
- GR303 RT to GR303 RT
- GR303 RT to TR008 RT
- TR008 RT to TR008 RT
- GR303 RT to PUB43801 interface (Digital Channel Bank Requirements and Objectives)
- TR008 RT to PUB43802 interface
- PUB43801 interface to PUB43801 interface

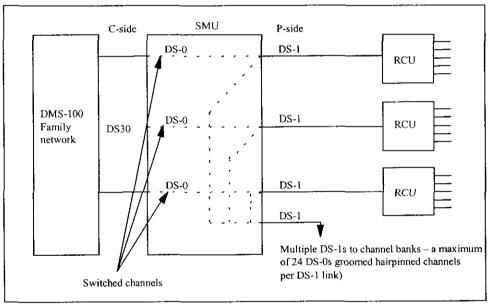
#### **DMS100**

Conceptually similar to the 5ESS, a hairpin connection can be established in the Subscriber Carrier Module - 100 Access - 2 (SMA2, available in software release NA006/XPM007). The SMA2 provides for GR303/large RT interfaces. The hairpinned connection does not utilize switch network time slots. Nonswitched (single or multichannel), nonlocally switched lines, and ISDN BRIs may be hairpinned. There are no restrictions on hairpin connections since these are completely within a single SMA2. Also, there are no apparent software restrictions on the number of hairpin connections allowed on a SMA2. The Subscriber Carrier Module-100S (SMS), with the latest version of DS1 interfaces (NT6X85AB), available with the BCS36 software release, can also support hairpinning for TR008. Similar to the 5ESS, a hairpin connection can be established in the SMA-2 (which supports GR303 and large RTs).

In the DMS-100, the SMSs with the latest version of DS1 interfaces (NT6X85AB) can support hairpinning. The supporting feature NTX299AB is required in the switch to support it.

The SMU can cross-connect services from a P-side port to another P-side port (refer to the following figure). These hairpin connections are dedicated and not supervised. The SMU does not extract and describe the signaling bits. A technician establishes the hairpin connections at the MAP terminal. These connections are permanent until the technician takes them down. The hairpin carries the DSO channel which includes data and signaling bits.





#### Siemens EWSD

Siemens does not support hairpins. On June 7, 2000, the Siemens Account Manager informed BA that it has estimated that it would take 20 staff members one man-year to develop the capability.

## **Operations Support Systems**

Since hairpinning has been deployed on an extremely limited basis throughout the industry, there are no OSS capabilities to support hairpinning as an unbundling tool. BA does not use hairpin/nail-up for its retail or wholesale operations. Telcordia has stated that significant maintenance and OSS issues require resolution to allow service activation and service assurance functions in a hairpin environment. OSS enhancements in legacy systems would need to be requested from Telcordia. However, the cost of enhancing legacy OSSs is in the range of millions of dollars and requires over a year of development work. There is limited support in the existing special services design systems and databases to support hairpinning. Hairpin connections are not supported in BA's ordering, provisioning, or maintenance systems. BA provided hairpinned circuits would need to be manually inventoried and designed, until development and modifications could be provided in applicable operations systems (if possible).

### Provisioning & Maintenance

All the complexities of joint special services design, testing, and installation are involved in implementing a hairpin solution. Hairpin connections are not supported in our ordering, provisioning, or maintenance systems. Thus the procedure cannot be deployed unless flow-thru OS support for service activation, provisioning, and service assurance and maintenance processes are available. These OS enhancements would require development for LFACS, SWITCH, TIRKS and separately, the CPC process. Recent communications with Telcordia (June 2000) indicate that there has been no interest from any carrier in the industry to develop OS capability to support hairpinning. Telcordia indicated that a national committee would have to be convened to address the issues.

Assignments can be made manually, but trouble isolation would require "special services" type of testing. Since BA equipment is involved in most of the circuit, including switch translations, to establish the switch hairpin connection, the CLEC is likely to be almost completely dependent on BA for the design, quality, and timeliness of installation of this circuit. Subsequent testing upon circuit failure would also require additional testing by BA technicians.

#### Conclusion

Based on the difficulty and high cost to develop and modify legacy OSs, the additional cost of using two DS0 ports for an unbundled loop, the lack of hairpin/nail-up in all Bell Atlantic switch types (Siemens EWSD), and the lack of suitable test methods - - hairpin/nail-up is not a cost justifiable architecture for unbundled loop hand-offs using a DS1 interface. (As a side note, an MCI document to the NY PSC in March of 1999 identified hairpinning as the least desirable unbundling technique for integrated facilities.) For unbundled loops ordered for end users currently served on IDLC, it is more economical to continue to use current methods by moving the loop to Universal DLC, or parallel copper, if available.

# **Bell Atlantic Team (Author):**

Name	Organization	Phone Number
Mike Melillo	NST – Wholesale Services Technology	914-644-2491

# EXHIBIT D



February 19, 1999

Alcatel USA, INC. 1107 Parthenon Court Bel Air, MD 21015-2020

William A. Pappentick
Account Director - Access Sales

Mr. Mike Nawrocki Manager – New Services Technology Bell Atlantic 13100 Columbia Pike Silver Spring, MD 20904

RE: Multi Carrier GR-303 Issues

Dear Mike,

This letter is intended to clarify issues related to GR-303 capabilities in a multi-carrier environment and review industry activity that is investigating and addressing open issues. Although much progress has taken place in the last few years in implementing GR-303 interoperability between different equipment vendors, technologies and operations systems, the industry must continue to work toward solutions for operating and managing GR-303 systems across multiple carrier networks (e.g. A single digital loop carrier remote terminal connected to different switches owned and operated by different carriers). To meet this goal, Alcatel continues to support the Bellcore GR-303 Forum.

Alcatel has taken a lead in the industry in addressing GR-303 issues and has successfully worked with Bell Atlantic for the last several years in resolving interoperability issues between the Litespan product and various equipment vendor switches and operations systems. In terms of product capabilities, the Litespan 2000 product currently supports up to 4 Virtual Interface Groups (VIGs) in each node. This means that Litespan 2000 can be physically connected to up to four Bell Atlantic switches. Each VIG supports the call traffic and processing for any number of voice channels (within the system's capacity) assigned to it. To function, a relationship is thereby established between the Litespan 2000, the switch it is connected to and the carrier's operations systems. Alcatel has successfully demonstrated the operation of multiple VIGs for a single carrier. However, operating GR-303 in a multi-carrier, multiple VIG environment introduces a number of significant additional challenges to the industry that still must be solved. These are summarizedin Attachment A.

Respectfully,

Bill Pappentick

attachment

- Overall Control & Management of the Litespan System Must Be Administered By One Carrier – The Litespan system supports one X.25 communications channel. Therefore, one company's Support System has visibility to all software loads, configuration changes and maintenance. Alarms and provisioning associated with the overall system can't be managed through multiple GR-303 VIGs, but rather are managed across the single X.25 communication channel. The system control cannot be partitioned across carriers or individual channel banks.
- Industry groups are still addressing real time dynamic Time Slot Interchange (TSI) functionality in a multi-carrier environment TSI is the real time allocation of network capacity between the switch and the NGDLC system for call processing. Dynamic TSI in a multi-carrier environment would require that GR-303 inventory and assignments are preassigned when the interface group is initially established. The Bellcore GR-303 Forum has identified the operations flow associated with this issue as an area requiring additional work from an industry perspective.
- There is only one master database within the Litespan and only one Operating System can maintain complete control The Litespan system can only have either the OPS/INE and Switch DLE/SA system (used in Bell Atlantic) or the Alcatel Access Management System (AMS) for provisioning line ports to GR-303 interface groups. Multiple OSs (that would be used by multiple carriers) cannot control a single Litespan system. Database backup and restore process from a remote Network Operating Center (NOC) requires that one backup system be ready and capable of restoring the Litespan database under control of one work group. This same group would be responsible for common equipment upgrades to the system that all GR303 interface groups depend upon, such as power supply cards, battery backup, fans, system communication links, shared ringing and tone cards and Litespan software upgrades.
- Testing resources and procedures associated with a multi-carrier GR-303 system are more complex and must be coordinated across carriers Given that each carrier may have unique Test Systems that they want connected to the Litespan system, separate test devices may be required for each GR-303 interface group. Testing procedures must be developed to avoid either an inability to access specific channels for testing or an invalid attempt to access a channel outside of a given carrier's interface group. For example, this may require that traffic be segregated to separate channel banks or bays on a per carrier basis when a Litespan system is associated with multiple CLECs. The need for unique test systems required by multiple carriers may also result in a limitation in the number of available VIGs that can be supported from a single system.
- Multiple carriers owning VIGs cannot each monitor system alarms The Litespan common control alarms are not carried over a GR-303 VIG, but are sent to a single common Craft interface or element management system. The system controller alarms are an extensive set of alarms that are reported to only one network operations center.
- Provisioning of GR-303 interface groups between carriers will require development of
  Detailed Operations Processes between the carriers owning the switches and the
  carrier owning the Litespan system Provisioning of GR-303 channels will require that all
  carriers agree that the single carrier who owns the Litespan system act as the system
  administrator for all carriers' switches connected to the Litespan. This system administration
  function cannot be performed from the switch. Without an automated system, like a separate
  Element Management system, this function must be performed locally at the digital loop
  carrier system. A system administrator must build the GR-303 interface groups and associate
  DS1 cards to GR303 Interface Groups for the individual carrier.

# VERIZON VIRGINIA INC.

# REBUTTAL TESTIMONY OF WILLIAM H. GREEN, III

E 9-1-1 ISSUES (ISSUE C6)

**CC DOCKET NO. 02-359** 

**OCTOBER 9, 2003** 

1	Q.	PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.
2	A.	My name is William H. Green, III. I am employed by Verizon as Senior Product
3		Manager, E 9-1-1 Wholesale. My business address is 1095 Avenue of the Americas,
4		New York, New York. I am the same William H. Green, III who previously submitted
5		testimony in this proceeding
6	Q.	WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?
7	A.	I respond to the Direct Testimony of Cavalier Witness Marty Clift on E 9-1-1 service
8		(Issue C6). I explain: 1) that this two party arbitration is the wrong forum to discuss Mr
9		Clift's proposed changes to Verizon's retail E 9-1-1 tariff; and 2) that, in any event, Mr.
10		Clift is wrong when he suggests that Verizon is overcharging local governments in
11		Virginia for E 9-1-1 service.
12	Q.	AT PAGE 9 OF HIS DIRECT TESTIMONY, MR. CLIFT ACKNOWLEDGES

- 13
  14
  15
  THAT THE VIRGINIA SCC IS CONSIDERING E 9-1-1 CHARGES IN A
  GENERIC PROCEEDING. WHAT IS THE SIGNIFICANCE OF THAT CASE
  FOR THE ISSUE CAVALIER RAISES HERE?
- 16 A. The Virginia SCC proceeding is the appropriate place to consider changes to Verizon's

  17 retail tariffs, and Cavalier will have the opportunity there to make the claims it makes

  18 here. As I explained in my Direct Testimony, this two-party arbitration has nothing to do

  19 with Verizon's retail E 9-1-1 tariff.

1 2	Q.	HAS CAVALIER VOICED THIS COMPLAINT ABOUT VERIZON'S RETAIL E 9-1-1 TARIFF BEFORE?
3	A.	Yes. Cavalier raised the issue of compensation for E 9-1-1 services in connection with
4		Verizon's section 271 application in Virginia. There, the Hearing Examiner stated that:
5 6 7 8		such an issue should be raised in a proceeding addressing the rates, terms and conditions by which Verizon Virginia and CLECs provide E-911 service, where all interested parties, including Chesterfield County and other localities may participate.
9		Virginia Hearing Examiner's Report at 131 (emphasis added). Cavalier also presented
10		this proposal to the Commission, which agreed with the Hearing Examiner. The
11		Commission held:
12 13 14 15 16 17		Because Cavalier's claim is over which carrier, Verizon or Cavalier, is the appropriate carrier to be billing various Virginia counties for E911 services and not related to E911 services provided to competing telecommunications carriers, they are outside the scope of section 271 review. We note that this matter is currently pending before the Virginia Commission.  Virginia § 271 Order ¶ 190 (citations omitted; emphasis added).
19 20 21	Q.	ON PAGE 9 OF HIS DIRECT TESTIMONY, MR. CLIFT STATES THAT CAVALIER "IS WILLING TO SIT DOWN WITH ALL BODIES TO WORK OUT A SUITABLE BILLING PLAN." CAN YOU COMMENT ON THIS?
22	A.	Yes. Mr. Clift can do just that by participating in the E 9-1-1 proceeding before the
23		Virginia SCC.

1 2 3 4	Q.	AT PAGE 9 OF HIS TESTIMONY, MR. CLIFT CLAIMS THAT VERIZON'S CHARGES TO LOCAL GOVERNMENTAL AUTHORITIES FOR E 9-1-1 SHOULD BE REDUCED, DOLLAR FOR DOLLAR, AS CAVALIER'S E 9-1-1 CHARGES INCREASE. IS THAT CORRECT?
5	A.	No. The E 9-1-1 functions that Cavalier performs do not replace the functions for which
6		Verizon charges local governments in Virginia.
7 8 9 10	Q.	AT PAGES 7-8 OF HIS TESTIMONY, MR. CLIFT SUGGESTS THAT VERIZON'S CHARGES FOR PUTTING CUSTOMER DATA IN THE E 9-1-1 DATABASE SHOULD BE LESS WHEN A CUSTOMER SHIFTS FROM VERIZON TO CAVALIER. IS THAT CORRECT?
11	A.	No. Mr. Clift assumes that Verizon charges Virginia local governments providing E 9-1-
12		1 service for the costs incurred when Verizon puts customer information into the E 9-1-1
13		database. Therefore, when Cavalier wins a customer and takes over this function, Mr.
14		Clift assumes that Verizon should reduce its charges to those local governmental
15		authorities. But, even though Cavalier charges for this function, Verizon does not.
16		Because Mr. Clift's assumptions are wrong, there is no basis for the claim that Verizon
17		should reduce its E 9-1-1 charges when Cavalier wins a customer.
18 19	Q.	DO VERIZON'S COSTS OF MAINTAINING THE E 9-1-1 DATABASE GO DOWN WHEN CAVALIER WINS A CUSTOMER?
20	A.	No. Verizon maintains the E 9-1-1 database for all telephone subscribers in Virginia.
21		Therefore, when a customer moves from Verizon to Cavalier, Verizon's E 9-1-1 database
22		still must store that customer's information and make it available to the local government
23		providing E 9-1-1 service to that customer. Therefore, Verizon's costs are unchanged.

1	O.	WHAT OTHER E 9-1-1 SERVICES DOES CAVALIER PERFORM?
4	V٠	

- 2 A. Mr. Clift says that Cavalier provides transport from its central offices to Verizon's E 9-1-
- 1 tandem switch, which in turn routes E 9-1-1 calls to the correct Public Safety
- 4 Answering Point. Verizon does not object to Cavalier recovering the costs associated
- 5 with performing this function.
- 6 Q. ARE THESE TRANSPORT SERVICES ANY REASON WHY VERIZON
- 7 SHOULD REDUCE ITS E 9-1-1 CHARGES WHEN CAVALIER ADDS
- 8 **CUSTOMERS?**
- 9 A. No. Verizon's costs of providing E 9-1-1 facilities to local governments in Virginia do
- not decrease simply because Cavalier provides transport from its central offices to
- 11 Verizon's E 9-1-1 tandem. Verizon must still provide the transport from its own central
- offices to the E 9-1-1 tandem; it must still provide the same connections from that tandem
- to the Public Safety Answering Points; and it must still maintain the E 9-1-1 database.
- Because Verizon's E 9-1-1 costs do not decrease as Cavalier adds customers in Virginia,
- 15 Verizon's charges to local governments for E 9-1-1 facilities should not decrease either.

## 16 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

17 A. Yes.